

14:10-15:50 **Session 6: Big Models**  
 Chair: Lucia Alessi, JRC  
**Andreas Joseph** (*Bank of England*)  
 Shapley regressions: a framework for statistical inference on machine learning models  
**Alessandro Barbarino** (*Federal Reserve Board*)  
 Near-equivalence in forecasting accuracy of linear dimension reduction methods in large panels of macro-variables  
**Michele Lenza** (*European Central Bank*)  
 Economic predictions with big data: the illusion of sparsity  
**David Kelley** (*Chicago Fed*)  
 On the network origins of approximate factor models

15:50-16:15 Coffee break

16:15-17:00 **Barbara Rossi** (*Universitat Pompeu Fabra*)  
 The effects of conventional and unconventional monetary policy: a new approach  
 Chair: Sebastiano Manzan, JRC

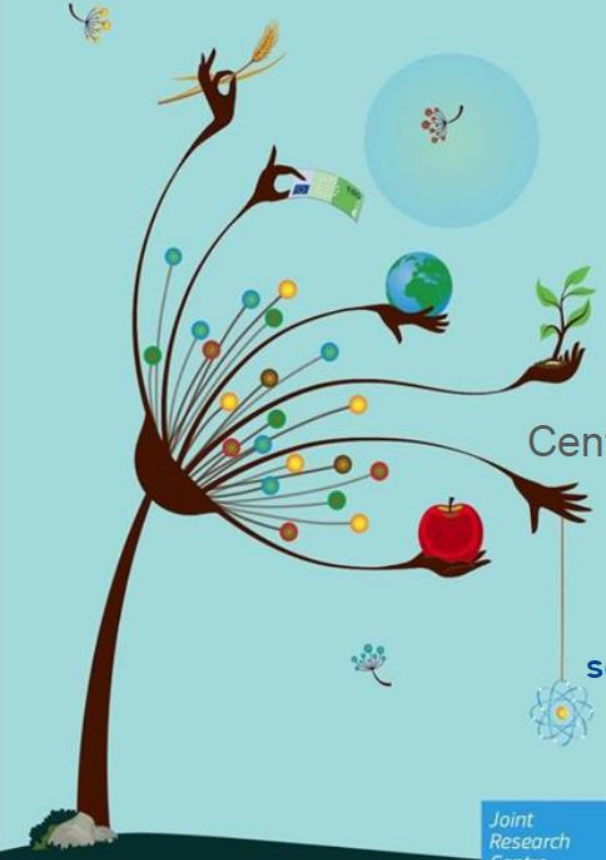
*Poster Presentations*

Yiru Wang (UPF)	Detecting density forecast breakdowns
Sathya Mellina (Loughborough)	Conventional and unconventional monetary policy shocks on private inflation expectations
Elisa Tosetti (JRC)	Regional variation in household debt and its impact on economic growth: the case of Europe
Francesca Lenoci (ECB)	Identifying counterparties' sector under EMIR reporting
Emiliano Marchese (IMT)	Early-warning signals of collapse in financial networks
Armando Rungi (IMT)	Machine learning for zombie hunting. Firms' financial constraints, productivity, and misallocation
Elisa Ossola (JRC)	A diagnostic criterion for approximate factor structure
Simone Passeri (Prometeia)	An early warning system for banking crises: from regression-based analysis to machine learning techniques
Dominik Hirschbuhl (ECB)	Applying granger causality networks and machine learning to predict the business cycle
Thomas Dierckx (KU Leuven)	Using machine learning and alternative data to predict movements in market risk
Luca Barbaglia (JRC)	Loan default analysis in Europe: tracking regional variations using big data
Luca Alfieri (Tartu)	Forecasting industrial production with boosting in a big "fat" dataset
Benedikt Maas (Hamburg)	Nowcasting US GDP with artificial neural networks
Francesco Gullo (Unicredit)	PIG: a complete NLP pipeline for automatic processing of garnishment documents
Luca Tiozzo Pezzoli (JRC)	Big data financial sentiment analysis in the European bond markets
Sergio Consoli (JRC)	Monitoring the business cycle with news
Laura Rossetti (VUB)	Synchronization of multi-lingual news data for econometric applications
Michele Catalano (Prometeia)	The Prometeia's uncertainty index for Italy
Zexi Sun (Goethe)	Vague talk in ECB press conference: news or noise?



# Big Data and Economic Forecasting Workshop

16-17 May 2019



bigNOMICS Project  
 Centre for Advanced Studies

The European Commission's  
 science and knowledge service  
 Joint Research Centre



## 1<sup>st</sup> day: 16 May 2019 (Building 36b, Room 2)

09:00-09:15 Welcome remarks by **Vladimír Šucha**, JRC Director-General

09:15-10:00 **Raffaella Giacomini** (*University College of London*)  
Micro-forecasting income processes  
Chair: Francesca Campolongo, JRC

10:00-11:15 Session 1: **Big Data**  
Chair: Luca Barbaglia, JRC  
**Jeff Chen** (*Bureau of Economic Analysis*)  
Off to the races: a comparison of machine learning and alternative data for predicting economic indicators  
**Marco Pangallo** (*University of Oxford*)  
The potential of big housing data: an application to the Italian real-estate market  
**Jesús Sanchez** (*Universidad Complutense de Madrid*)  
Nowcasting private consumption: traditional indicators, uncertainty measures, credit cards and some internet data

11:15-11:30 Coffee break

11:30-13:10 Session 2: **Big Models**  
Chair: Elisa Tosetti, JRC  
**Ines Wilms** (*Maastricht University*)  
High dimensional forecasting via interpretable vector autoregression  
**Paolo Fornaro** (*Research Institute of the Finnish Economy*)  
Nowcasting Finnish real economic activity: a machine learning approach  
**Maxime Leroux** (*Université du Québec à Montréal*)  
How is machine learning useful for macroeconomic forecasting?  
**Dimitris Korobilis** (*University of Essex*)  
High-dimensional macroeconomic forecasting using message passing algorithms

13:10-14:20 Lunch (Saletta)

14:20-16:00 Session 3: **Text Analysis**  
Chair: Sergio Consoli, JRC  
**Eleni Kalamara** (*King's College London*)  
Making text count: what newspaper can tell us about the economy  
**Sam Borms** (*Université de Neuchâtel*)  
The Sentometrics approach for textual sentiment based prediction  
**Andres Azqueta** (*European Central Bank*)  
Economic policy uncertainty in Europe  
**Vegard Larsen** (*Norges Bank*)  
Business cycle narratives

16:00-16:30 Coffee break

16:30-17:15 **Eric Ghysels** (*University of North Carolina at Chapel Hill*)  
Machine learning with mixed frequency data  
Chair: Marco Ratto, JRC

17:30-19:00 **Reception & Poster Session** (Centre for Advanced Studies, Building 46i)  
Remarks by Jutta Thielen-del Pozo, JRC

19:30-21:30 Social dinner at Ristorante Belvedere (Ranco)

## 2<sup>nd</sup> day: 17 May 2019 (Building 36b, Room 2)

09:00-10:40 Session 4: **Expectations and Uncertainty**  
Chair: Luca Tiozzo Pezzoli, JRC  
**Tatevik Sekphosyan** (*Texas A&M University*)  
Monetary policy uncertainty: a tale of two tails  
**Javier Perez** (*Banco de España*)  
A new economic policy uncertainty index for Spain  
**Gergely Ganics** (*Banco de España*)  
BVAR forecasts, survey information and structural change in the Euro area  
**Simone Manganelli** (*European Central Bank*)  
Selecting models with judgment

10:40-11:10 Coffee break

11:10-13:00 Session 5: **Networks and Factor Models in Finance**  
Chair: Elisa Ossola, JRC  
**Tiziano Squartini** (*IMT Lucca*)  
Detecting mesoscale network structures  
**Alberto Caruso** (*Centro Studi Confindustria*)  
Predicting interest rates in real-time  
**Mirco Rubini** (*University of Bristol*)  
Comovement changes between stocks and bonds: evidence from a new class of large dimensional threshold group-factor models  
**Fabio Trojani** (*University of Genève and Swiss Finance Institute*)  
Smart-SDFs

13:00-14:10 Lunch (Saletta)